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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,195	09/14/2000	Keith H. Johnson	2000200-0003	2403

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EXAMINER

GOLLAMUDI, SHARMILA S

ART UNIT PAPER NUMBER

1616

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,195

Applicant(s)

JOHNSON, KEITH H.

Examiner

Sharmila S. Gollamudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-11 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-11 and 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of Request for Reconsideration received on April 23, 2004 is acknowledged. Claims **1-3, 6-11, and 15-26** are pending in this application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of claims 1-3, 6-11, and 15-26 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 6-11, and 15-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 11-19, 21, and 26 are and rejected under 35 U.S.C. 102(a) as being anticipated by Johnson et al (5,997,590).

Johnson et al disclose the water clusters in the instant arrangements and instant dimensions (20-molecule pentagonal dodecahedral with protruding delocalized π orbitals). Note

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fig. 4, 12, 23 and Appendix A spanning column 16-17. The water clusters comprise pentagonal arrays of water. See column 5, lines 64-65. Chemical method for producing water clusters comprising pentagonal dodecahedral structures include the use of surfactants and/or clathrating agents. See column 7, lines 50-53. Alcohol co-surfactants utilized are t-butyl-alcohol, n-butyl-alcohol, and tall oil fatty acids are taught as the surfactant. See column 15, lines 46-60. The microemulsifier concentrate consists of all ingredients needed to form the microemulsion except the fuel itself to form a single phase (i.e. no gel). This concentrate is then blended with the diesel fuel to form a water-in-oil microemulsion. See column 16, lines 5-10. Appendix A teaches a water-in-oil emulsion containing 76.5% fuel (oil component), 9% surfactant, 10% instant water, and 4.5% co-surfactant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-11, and 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (5800576) in view of EP 0916621, in further view of Nazzaro-Porro (5385943).

Johnson et al disclose the water clusters in the instant arrangements and instant dimensions (20-molecule pentagonal dodecahedral with protruding delocalized $p\pi$ orbitals). Note fig. 2, 8, and 12. Chemical method for producing water clusters comprising pentagonal dodecahedral structures include the use of surfactants and/or clathrating agents. See column 7,

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lines 50-53. polyglycerl-oleate or cocoate are taught as the surfactants. See example 1. The reference speaks on the use of clustered water for the fuel industry and the importance of water in biological reactions (col. 1, lines 1-16). Johnson teaches the clustered water can be used in any oxidative reaction (col. 8, lines 15-20).

Johnson et al do not teach utilizing the water clusters for cosmetic formulations.

EP 0916621 discloses the importance of water, which is applicable to various fields of industry such as the textile industry, cleaning industry, leather industry, in the coal and petroleum/fuel industry, and in the pharmaceutical and cosmetic industry. See page 1, lines 13-16 and page 6, in its entirety, especially, lines 45-58. The advantages of using microclustered water are disclosed: the superior ability to disperse oil and fats in order to prepare emulsions. Further, the water clusters have a humectant effect and prevents water from evaporating the skin, allows for excellent absorbability, and permeation of skin tissue for rapid delivery of drugs. See page 5, lines 13-20. The reference teaches compositions containing microclustered water, surfactants in the amount of 1-40% (polyoxyethylenecetyl ether, polyethyleneglycol ester of fatty acid, etc.), emulsifiers in the amount of 2-8%, and cosmetic oils in the amount of 10-80%(paraffin or olive). The content of oil depends on the type of cream desired such as an oily, slightly oil, or neutral cream. See page 8, lines 14-15. The reference teaches the incorporation of drugs such as vitamins, astringents, etc. see page 8, lines 41-42. EP 0916621 discloses the compositions in various forms such as creams, gels, and liquids. Further, the reference discloses the use of additives such as fragrances and antioxidants. EP 0916621 discloses the use of borax in one of the compositions for stability of the emulsion. Example 7 teaches a composition containing 39% water. Although, EP mainly exemplifies water as a dispersing agent for the oil,

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i.e. mainly oil-in-water emulsion, EP teaches the use of the water clusters as an emulsifying base for ointments, an absorption-promoting agent for drugs, etc. see page 5, line 24.

Nazzaro-Porro teaches use of topically applicable preparations. The reference teaches the topical preparations are found in various forms such as solutions, milk, lotion, creams, ointments, and pastes. Milk, lotions, and creams are oil in water emulsions whereas ointments are water in oil emulsions, which are produced in the standard way by standard emulsifiers. See column 2, lines 19-30.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Johnson et al and EP and utilize Johnson's microclusters in a cosmetic formulation. One would be motivated to do so since EP teaches the importance and applicability of water clusters in various fields such as the fuel industry, pharmaceuticals, and the cosmetic industry, and its advantageous properties. Therefore, although Johnson teaches the use of the instant water clusters as a fuel additive, one would be motivated to utilize Johnson's water clusters in other fields such as cosmetics/pharmaceuticals since EP teaches the motivation of using water clusters over pure water in both fields with success.

Furthermore, although EP does not specifically state that the water clusters are utilized in a water-in-oil composition, EP teaches the use of the water clusters as an emulsifying agent for ointments and Nazzaro-Porro states that ointments are water-in-oil emulsions; therefore, EP suggests and teaches the use of the water clusters for water-in-oil emulsions. Additionally, EP teaches the use of varied amount of oils depending on the type of base desired, i.e. oily, slightly oily, or neutral. Moreover, Nazzaro-Porro teaches that the preparations of water-in-oil and oil-in-water emulsions are conventional and done through conventional practices known in the art.

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Therefore, depending on the type of formulation desired and the intended use of the cosmetic, i.e. on dry skin versus oily skin, one would be motivated to formulate the desired type of emulsion. The preparation of w/o emulsions versus o/w emulsions is a common skill in the art as also taught by Nazzaro-Porro.

Claims 1-3, 6-11, and 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (5800576) in view of Lorenzen (6033678) in further view of Guthauser (5162378).

Johnson et al disclose the water clusters in the instant arrangements and instant dimensions (20-molecule pentagonal dodecahedral with protruding delocalized $p\pi$ orbitals). Note fig. 2, 8, and 12. Chemical method for producing water clusters comprising pentagonal dodecahedral structures include the use of surfactants and/or clathrating agents. See column 7, lines 50-53. polyglycerl-oleate or cocoate are taught as the surfactants. See example 1. The reference speaks on the use of clustered water for the fuel industry and the importance of water in biological reactions (col. 1, lines 1-16). Johnson teaches the clustered water can be used in any oxidative reaction (col. 8, lines 15-20).

Johnson et al do not teach utilizing the water clusters for cosmetic formulations, specifically in a water-in-oil emulsion.

Lorenzen teaches the process of making microclustered water, which are useful for a variety of environments. See column 1, lines 21-22. The invention provides for producing microclustered water by using a aloe or Vitamin E template, or other medicaments, for the treatment if the skin. See column 2, lines 59-65. A template is defined as any material that is used with the microclustered water to create a molecular structure. See column 1, lines 49-51.

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The template is varied and customized to suit the desired intended use of the water, for instance the template can be coal tar, to use the water as a gasoline additive. See column 6, lines 22-30.

Lorenzen teaches microclustered water possesses unique potential in facilitating cellular chemical reactions and stimulating resonance transfer of cellular energy. Thus, the application of the microclustered water is limitless and used for medicines, cosmetics, chemical use, biological use, and agricultural use. See column 8, lines 27-48. Lorenzen discloses that under normal conditions, natural clustering of water molecules is short lived and the cluster size is unpredictable.

Guthauser teaches a silicone containing water-in-oil emulsions. Guthauser teaches that many formulations used to make personal care products are in the form of emulsions. Further, Guthauser states that microemulsions are desirable since they provide vehicles that are excellent for enabling penetration of the active agent, which would not normally, into the skin. Water-in-oil microemulsions results when water is dispersed throughout the oil phase. See column 1, lines 16-53. The stability of w/o emulsions is partially due to emulsifiers such as polyoxyalkylene-polysiloxan copolymers. The core w/o emulsions contain 8-20%% surfactant, 10-35% silicone oil, 8-20%% salt, and 20-40% water, among other components. See claim 1 and examples. The composition contains antiperspirant such as aluminum chlorohydrate, etc. see column 6, lines 65-68. A variety of other ingredients such as vitamins, antioxidants, UV absorbers, etc, are taught. See column 4, lines 1-10. Paraffin waxes are taught as additional oil components in the composition. See Table in column 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Johnson et al and Lorenzen and utilize Johnson's

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microclusters in a cosmetic formulation. One would be motivated to do so since Lorenzen teaches the importance and applicability of water clusters in various fields such as a gasoline additive, pharmaceuticals, and cosmetics, and its advantageous properties such as its unique potential in facilitating cellular chemical reactions and stimulating resonance transfer of cellular energy. Further, Johnson teaches the importance of water for not only fuel but for all biological reactions. Therefore, although Johnson teaches the use of the instant water clusters as a fuel additive, one would be motivated to utilize Johnson's water clusters in other fields such as cosmetics/pharmaceuticals with a reasonable expectation of success since Lorenzen teaches not only the motivation but also the successful use of water clusters in various fields.

Additionally, one would be motivated to look to Guthauser and utilize the instant water-in-oil composition. One would be motivated to do so since Guthauser states that it is conventional to prepare skin products in an emulsion form and water-in-oil microemulsions provide a vehicle that allows active agents to penetrate the skin. Further, Guthauser provides the guidance in making the microemulsions. Therefore, one would be motivated to utilize the microemulsions to provide a vehicle that penetrates the skin. Lastly, the form of a cosmetic formulation is dependent on the intended use of the composition and the desired look of the product.

Duplicate Claims

Applicant is advised that should claim 11 be found allowable, claim 26 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight

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difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Art of Interest

US patent 6,451,328 to Ionita-Manzatu et al is not relied upon but is considered pertinent to applicant's disclosure. US patent '328 discloses the inherent antioxidant activity of structured water and the method of using structured water for the skin in reducing free radicals.

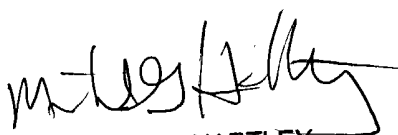
Conclusion

No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-272-0614. The examiner can normally be reached on M-F (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on 571-272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MICHAEL G. HARTLEY
PRIMARY EXAMINER

Sharmila S. Gollamudi
Examiner
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